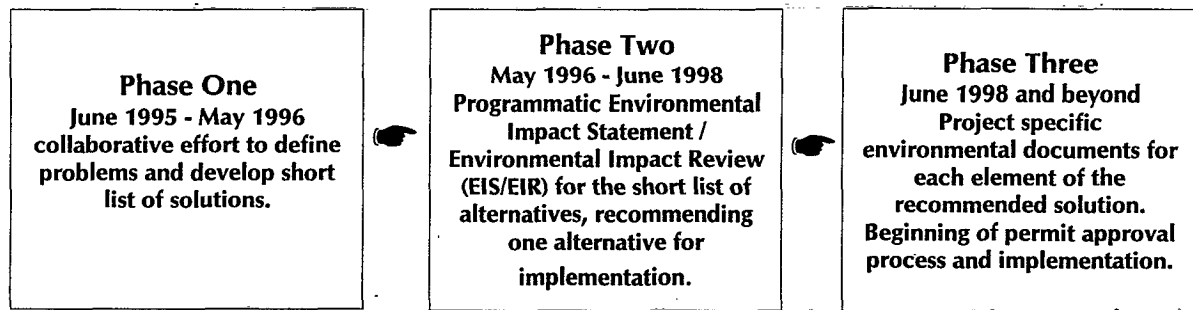




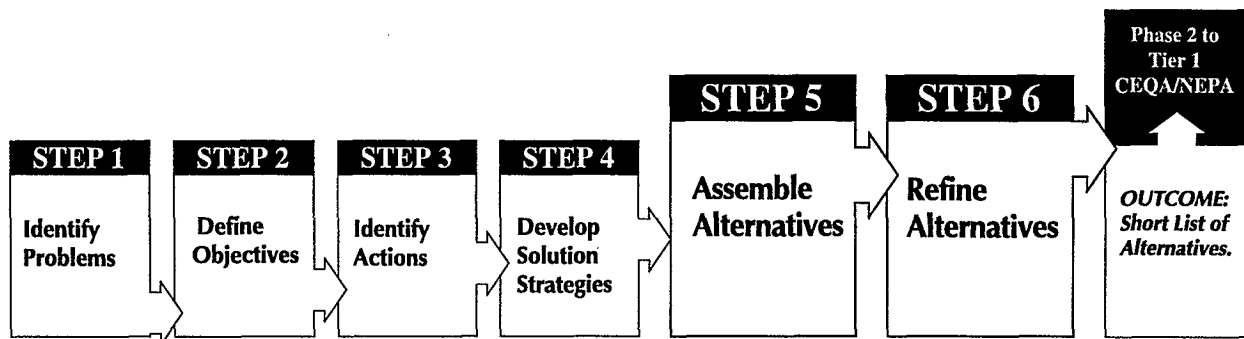
ALTERNATIVE GENERATION AND REFINEMENT

OVERVIEW OF THE PROCESS

The CALFED Bay-Delta Program uses a three phase process to identify problems, propose solutions, analyze environmental implications of the proposed solutions, and devise a long range plan to protect the Bay-Delta. The phases are summarized in the following boxes.



Phase One includes six steps. The following illustration summarizes the six steps, highlighting the steps we will address in Workshop 5.



WORKSHOPS 1 THROUGH 4

Steps one through four of Phase One were completed in Workshops 1 through 4 and in the technical analysis that occurred between the Workshops.

Workshop 1 produced a list of Bay-Delta problems clustered in the four critical areas: ecosystem quality, water quality, water supply, and system vulnerability.

Following Program Team refinement of that list, *Workshop 2* defined the Program objectives:

Water Quality – Provide good water quality for all beneficial uses.

Ecosystem Quality – Improve and increase aquatic and terrestrial habitats and improve ecological functions in the Bay-Delta to support sustainable populations of diverse and valuable plant and animal species.

Water Supply – Reduce the mismatch between Bay-Delta water supplies and current and projected beneficial uses dependent on the Bay-Delta system.

Vulnerability of Delta Functions – Reduce the risk to land use and associated economic activities, water supply, infrastructure, and the ecosystem from catastrophic breaching of Delta levees.

Workshop 3 participants identified 50 different categories of actions that could meet the objectives. An action is a single activity or group of closely related activities that address one or more Bay-Delta problem areas but does not constitute a comprehensive solution. The Program Team subsequently reviewed the problems, objectives, and actions to develop solution strategies – an array of possible approaches to solving Bay-Delta problems.

At *Workshop 4*, the process of assembling alternatives began. Participants reviewed four primary conflicts in the Bay-Delta:

Fisheries and Diversions

Habitat and Land Use & Disaster Protection

Water Supply Availability and Beneficial Uses

Water Quality and Land Use

By approaching these conflicts in different ways, participants reviewed 32 possible starting points for a Bay-Delta solution developed by the Program Team.

Four Conflicts

Fisheries and Diversions

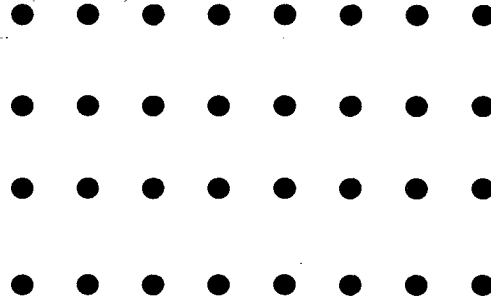
Habitat and Land
Use/Disaster Protection

Water Supply and
Beneficial Uses

Water Quality and Land
Use



32 Starting Points



GETTING FROM WORKSHOP 4 TO WORKSHOP 5

Using the 32 starting points, the Program Team created more than 100 single-conflict alternatives, called *preliminary alternatives*. They then combined and improved them to produce alternatives that addressed the fourteen objectives and the four conflict areas. After further technical analysis and refinement to eliminate redundancy and fill in details, they produced the twenty alternatives presented in this packet.

WHERE WE ARE NOW

These 20 alternatives will undergo substantial further refinement, including review at Workshop 5. The alternatives will then be recombined and adjusted to produce a list of eight to twelve and finally, by May 1996, a list of three to five promising alternatives. This process of refining and narrowing the list of alternatives will be based on the following considerations:

Tools to Help Refine the Alternatives

Performance Assessment	Teams of technical experts will assess how well each alternative satisfies Program objectives, aided by evaluation criteria. These assessments will be used to identify changes that would improve and balance the alternatives.
Solution Principles	Developed in Public Workshops 1 and 2, these six principles guide both the development and evaluation of the alternatives. (See paper in Appendix on Solution Principles).
Workshop 5 Review	Participants representing all Bay-Delta interests review the 20 draft alternatives to give input.
CALFED Agency Team Review	Technical experts from the CALFED Agencies will give input and additional detail to the 20 draft alternatives.
BDAC Review	The Bay Delta Advisory Council (BDAC) provides input for every step of the CALFED Program and will review and advise on the 20 draft alternatives, and accept public input on the 20 alternatives and on any proposed alternatives which should be evaluated.
Preliminary Cost Information	Program staff will develop order-of-magnitude cost estimates for all 20 draft alternatives for use in future refinement.

FUTURE CONSIDERATIONS

During the remainder of Phase One and during Phase Two, the Program will consider several additional issues relating to alternatives, issues which are not covered explicitly in the current list of draft alternatives.

Institutional Guarantees Are Fundamental to All Alternatives. Any alternative seriously considered by CALFED Bay-Delta Program must have rigorous and enforceable guarantees that the alternative will be implemented and operated as described and will provide the benefits claimed for it. The following descriptions of the alternatives do not present information on the particular guarantees that would be associated with each alternative, although such guarantees are a crucial issue of critical importance to all stakeholders. Institutional guarantees will be described in greater detail as the process of developing the program alternatives progresses.

All Alternatives Can Be Phased over Time. The individual actions included in each alternative offer many opportunities for phased implementation over short-term, intermediate-term, and long-term time frames. Such possible time phasing of action implementation has not yet been described for these alternatives. Phasing of action implementation offers great benefits in financing the overall program in installments, on the one hand, and in fine-tuning the overall solution program, on the other hand. For example, results observed in monitoring short-term actions can be used to improve the design and implementation of longer term actions.

All Impacts Will Be Mitigated. Although the following descriptions do not highlight the construction and site-specific impacts that may be associated with the actions in the alternatives, CALFED recognizes that such impacts will occur. Specific mitigation measures will be considered at the end of Phase Two.

Alternatives Will Modify Flow Volume and Timing. Modifying the volumes and timing of flows through the Bay-Delta system is an element of all solution alternatives. The following descriptions do not analyze and describe these types of flow changes but they are critical to the performance and resulting costs and benefits of any alternative. Greater detail on flow volume and timing changes at particular points in the system will be described as the process of the developing the program alternatives progresses.